

July 12, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Pedee Silt Loam 72 Ida 0525

General Site Characteristics

Location--Benewah County, Idaho, southwest corner of northwest 1/4 of Section 16, T. 44 N., R. 4 W; described--November 6, 1972, by Jack Chugg; topography--dissected terrace, convex, 8 percent slope; elevation--2880 feet; aspect--south southwest; parent material--thin loess over mud flow; drainage--moderately well; stoniness--few gravel and cob on surface; erosion--slight; permeability--slow; vegetation or use--Ponderosa pine/Grass habitat type, wheat; classification-- *Fine, mixed, mesic Typic Paludalfs*

Pedon Description

Ap 0-9 inches. Dark gray brown (10YR 4/2.4) gravelly loam, very dark brown (10YR 2.4/2.2) moist; moderate coarse subangular blocky to moderate medium and fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; plentiful very fine and fine roots; non-calcareous; abrupt wavy boundary.

A12 9-16 inches. Dark gray brown (10YR 4.1/2.3) gravelly silt loam, very dark brown (10YR 2/2.4) moist; weak medium subangular blocky to moderate medium and fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; plentiful very fine and fine roots; non-calcareous; clear wavy boundary.

B2 16-27 inches. Brown (10YR 4.6/3) gravelly silt loam, dark brown (10YR 3/3) moist; weak medium prismatic structure; hard, friable, slightly sticky, slightly plastic; plentiful very fine and fine roots; thin few clay films; non-calcareous; abrupt wavy boundary.

A2 27-29 inches. Very pale brown (10YR 7.1/3) very gravelly very fine sandy loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; very few fine roots; some clay films; non-calcareous; stone line in A2; abrupt wavy boundary.

B21t 29-36 inches. Yellowish brown (10YR 5.4/4) gravelly clay loam, brown (10YR 5/3) moist; strong very coarse columnar to moderate medium angular blocky structure; extremely hard, firm and very firm, very sticky, very plastic; very few fine roots; thick continuous clay films; non-calcareous; clear wavy boundary.

B22t 36-43 inches. Yellowish red (5YR 5/6) gravelly loam, yellowish red (5YR 4/6) moist; massive; extremely hard, firm, slightly plastic; thick continuous clay film; non-calcareous; clear wavy boundary.

B3t 43-48 inches. Yellowish red (5YR 5/3) very gravelly sandy clay loam, yellowish red (5YR 4/8) moist; massive; extremely hard; thick continuous clay films; non-calcareous.

Chemical characterization and physical analysis of profile 72 Ida 0525

Date: July 12, 1973

No.	Horizon	Depth in.	pH Paste	pH 1:5	ECx10 ³	Saturation extract me/1000 gms soil						
						Ca	Mg	Na	K	CO ₃	HCO ₃	Cl SO ₄
1	Alp	0-9	5.70		.16							
2	A12	9-16	5.80		.14							
3	B2	16-27	5.45		.13							
4	A2	27-29	5.35		.15							
5	B21t	29-36	4.85		.12							
6	B22t	36-43	6.75		.51							
7	B3t	43-48	7.60		.40							

Exchangeable ions me/100 gms					C.E.C. me/100	Base Sat. %	Gyp. %	CaCO ₃ %	E.S.P.	C %	O.M. %	N %	C:N	Pw at sat.	Soil:Rx Ratio
Ca	Mg	Na	K	H											
2.65	1.05	.06	.37	6.66	12.40	38.3			0.6	1.139	1.96	.112	10.2	40.0	.744
2.13	1.24	.09	.35	6.76	11.99	36.0			0.8	.901	1.55	.090	10.0	44.0	.773
1.71	1.26	.10	.30	5.65	10.13	37.0			1.1	.767	1.32	.061	12.6	35.0	.794
.53	.43	.05	.07	1.08	2.85	50.1			2.3	.146	.25	.010	14.7	25.0	.443
2.98	2.68	.16	.25	4.45	13.26	57.7			1.5	.179	.31	.018	10.0	38.0	.781
1.28	.85	.06	.05	.28	3.53	88.9			2.4	.059	.10	.003	19.8	32.0	.279
.72	.59	.06	.04	.08	3.01	94.6			4.0	.045	.08	.002	22.7	33.0	.189

REMARKS: C.E.C. was done by leaching soil with 10% NaCl, pH 2.3 before distilling. Rock ratio was accounted for when calculating Ca, Mg, Na, K, H, C.E.C., O.M., N, and C.

REFERENCE FOR DATA: Dr. Maynard A. Fosberg
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Moscow, ID 83843

ANALYSIS BY: Andrew L. Bristol

Profile: 72 Ida 0525

Date: June 21, 1973

Particle size distribution (mm) (percent)										Gravel &	
No.	VCS	CS	MS	FS	VFS	TS	TSi	TC	Stone, etc.	Texture	
	2-1.0	1-0.5	0.5-0.25	0.25-0.05	0.1-0.05		<0.05-0.002	<0.002	>2mm	Class	
0-9	1.76	4.02	3.74	10.91	13.25	33.67	49.89	16.43	25.60	gravelly loam	
9-16	2.22	4.04	3.27	9.27	14.15	32.96	50.42	16.62	22.70	gravelly silt loam	
16-27	1.76	3.63	3.27	11.42	14.52	34.60	51.51	13.89	20.60	gravelly silt loam	
27-29	2.67	4.08	3.83	12.90	21.05	44.52	49.97	5.51	55.70	very gravelly very fine sandy loam	
29-36	.24	.56	1.46	14.69	21.23	38.17	32.16	29.67	21.90	gravelly clay loam	
36-43	1.85	3.32	3.66	15.35	23.00	47.18	35.15	17.67	22.10	gravelly loam	
43-48	6.68	9.71	7.58	17.10	12.53	53.61	19.14	26.45	81.10	very gravelly sandy clay loam	

REMARKS: Calgon Added
Centrifuge Method
No Carbonates

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		BULK DENSITY		ATMOSPHERES	
		Depth in Inches		15 Bars	.33 Bars
72 Ida 0525-1	0-9	1.63		14.50	29.08
-2	9-16	1.42		15.00	32.34
-3	16-27	1.52		13.95	29.74
-4	27-29	1.68		16.34	18.71
-5	29-36	1.84		19.32	29.26
-6	36-43	1.84		12.765	20.93
-7	43-48	—		14.525	23.75

No clods available (only rock and sand) for those bulk densities not run above.

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